

VARIOUS TYPES OF CANOE FISHERY
IN IKOT ABASI

by

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ABSTRACT

Ikot Abasi, one of the six maritime local Government Areas in the Cross River State has a longstanding reputation as a fishing centre in Nigeria. Here various types of fishery are practiced. This write-up attempts to describe five definitive areas, the criteria of which are either on the type of gear used, for example hook fishery or on the type of fish species landed e.g. Bonga. For a period of twelve months some detailed observations were registered on how they operate in four coastal fishing ports of Uta Ewa, Okoroeta, Iko and Kampa all on Atlantic Coastline of Opobo. Also there are series of attempts to highlight the prospects for future development having delved extensively into the problems which militate against increased fish production in the area. Comparative data of production of the various types of fishery are given to emphasize the need for further in-depth study to bring out more findings and assist in offering useful suggestions to enhance maximum artisanal fisheries productivity.

INTRODUCTION

Punctuated intermittently along about 6 km. of Opobo Coastline and in scattered locations in the estuaries and creeks of Imo River are various fishing settlements. The settlers in these areas from time immemorial have taken to fishing as their major occupations. There are no farmlands in these places and where they exist, they are mainly utilised for erection of fishing huts. Canoe fishing is the major industry which involves the use of dug-out wooden canoes carefully equipped with essential fishing equipment and accessories. The canoes are adapted in two ways depending upon the usage to which they are put. Seaworthy canoes are obviously large about 10 - 15 metres long, 2 - 3 metres deep and with fairly raised keel. Majority of the seaworthy ones are mechanised i.e. provided with outboard engines. In Iko, Okoroeta, and Kampa fishing ports most of these canoes are constructed from soft woods to reduce their weight and minimise efforts applied to 'drydock' them to the sand bank after each fishing trip. A rough estimate shows that no less than two thousand of these are used in these settlements. The creek fishing canoes are usually small varying in length between 4 to 10 metres. Very few of these are mechanised either due to lack of funds to purchase outboards or needlessness in having one since the distances covered are short. A wide range of gears are used in canoe fishery and the types depend on the areas of specialization. Five areas of specialization described in this study include:-

- (a) Bonga fishery
- (b) "Big fish" fishery
- (c) Small scale croaker fishery
- (d) "Cray fish" fishery
- (e) Hook fishery

The landing composition of these fisheries tend more or less to overlap except in Bonga and "Crayfish" fisheries where the major components of the catch are predetermined before the onset of the trips.

Each fishery consists of many canoe units and number of fishermen. A canoe unit is usually made up of a masterfisherman, an outboard engine driver (if mechanised) and at least 2 - 3 canoe mates depending

upon the size of the canoe. The areas of operations are creeks, estuaries, other coastal brackish water and in open sea of less than 40m depth i.e. 6 - 8 nautical miles away from the coast. The catch composition is made up of major brackish water and marine species. These are either marketed fresh or processed and smoked. There are occasional spoilage particularly in Bonga since this fishery often records superfluous landings. The marketing and distribution of fish pose little or no problems since fish is a very high demanding commodity. Fish mongers and mummies migrate from the hinterland to the fishing villages to purchase fish for sale at relatively exorbitant prices at upland markets. In this way it might not be possible to eliminate middlemen in fish trade for quite a long time to come. But rather with improved communication and transportation system and well organised cooperative organizations it is possible for the fishermen - the actual producers to bargain for and sell their fish competitively direct to consumers in well organised model fish markets in future.

TYPES AND PECULIARITIES

Bonga fishery

Bonga fishery is carried out in open seas 1 - 3 nautical miles in inshore waters and in the creek and estuaries of Imo River. Bonga exploitation is a specialised active fishery which though very lucrative in turn-over does not involve huge investment. The canoe units which may be mechanised or not are usually equipped with gillnets 2" or 3" ply 2 and other fishing accessories. Good fishing season for Bonga extends from October to May and because of its inexpensive nature it is embraced by about 200 - 300 fishermen in Ikot Abasi. Bonga (*Ethmalosa fimbriata*) spawns at sea at the beginning of dry season. The planktonic eggs hatch and in high temperatures of the tropics metamorphose quickly and the immature stages move up the estuary into the brackish water creek where they grow to 11 - 17mm (TL) before they migrate back to sea (Longhurst 1961, Moses 1980).

Bonga move in shoals of three to four thousand and are naturally detected by the experienced fishermen i.e. continuous splashing of surface water and hovering flights of kites around a particular portion of surface water. The exploitation involves local purse seining of the portion with fantastic heavy catch. During the last Bonga season between October and May 1981 a conscientious fisherman from Iko made ₦2000.00 from sales of landings. The Bonga fishermen are usually faced with two problems, the solution of which depends on the ingenuity of the fishermen concerned. In open sea exploitation the dangers of fish spoilage are greater. Experienced fishermen have begun to degut the catch though this may not be very helpful in heavy landings. Others move to sea with additional mechanised canoe for quick transportation of the catch to the fishing port. Bonga is the major economic species in Ikot Abasi.

"Big-fish" Canoe fishery

This is a capital intensive fishery which is embarked upon by relatively few fishermen who are very courageous and bold to operate in the coastal inshore waters within 10 - 20 nautical miles. Far into the open seas large mechanised canoes are used and with rich and highly productive fishing grounds, set nets, gill nets and shark nets of high catching efficiency are employed. This fishery is an all-time occupation punctuated by some breaks caused by the rainy season turbulent weather. The catch composition usually contains fish varying in length from 0.05m to 8m. They include *Scoliodon* (Shark and Hammer-heads) *Baracuda*, *Larimus pelii* (drum), *Lutjanus dentatus* (snappers) *Pomadasys juheli* (Grunters), *Polynemus*, *Quadrifilis*, *Galeiodes decadactylus* (Shiny nose), *Cynoglossus* Spp. *Pseudotolithus* spp (Croakers) and Tarpons. Big fish have high market values. Landed fish are usually cut into sizeable junks and sold fresh or they are meticulously smoked. A serious big fish fisherman can make a revenue return of about ₦6,000 - ₦8,000 after all expenses like labour costs, fuel, craft and gear repairs have been subtracted.

Table 1 shows comparative turn-over from the various aspects of canoe fishery.

Small Scale "Croaker" Fishery

This fishery whose areas of operations include:- $\frac{1}{2}$ - 1 nautical mile inshore, open creeks and estuaries attracts majority of fishermen in Ikot Abasi fishing villages. The reasons for this are not far-fetched. The equipment used - gears and crafts are cheap and within an average fisherman's reach and since the major fishing areas are creeks and protected estuaries risks, mishaps and other unforeseen hazards are minimal. Besides it is usually an, all-season affair with minor or negligible breaks caused by rough sea winds. The estuaries and creeks in Ikot Abasi are copiously fringed with mangrove trees and date-palm grooves which serve as wind breakers ensuring that the fishing waters are protected for all time exploitation by the traditional fishermen and women. A good percentage of crafts are small wooden canoes which are usually encouragingly good. In Ikot Abasi, statistical records have established the fact that Croakers forms the second major economic species after Bonga. The species composition of this fishery include Pseudotolithus elongatus, P. senegalensis, Ethmalosa fimbriata (bonga) Ilisha africana (shad), Drums, Threadfins and Sole etc. Croakers have good markets but are highly susceptible to spoilage if processing is delayed after heavy landings. The fish are salted and smoked in numerous tiny uplong rackets and are disposed of in the various fishing port markets.

Crayfish Fishery

Crayfish fishery appears to bring rather unsatisfactory economic returns and because of the drudgery and patience involved, the creek and brackish water operations are sole prerogative of women. However, sea exploitation of crayfish is men's affairs. Crayfish fishery is inexpensive but labour intensive. Technically, crayfish refers to the smoked dried product consisting of a mixture of carideid shrimps, post larval stages of pink shrimps and other crustaceans, harvested from estuaries and sediment rich coastal waters. The 'boom' in crayfish exploitation takes place from April to October i.e. during the closing month of the rainy season. Shrimps Panacus duorarum and numerous other crustaceans migrate for breeding in the creeks and estuaries where they are caught in great abundance. 'Crayfish' fishery is not a popular occupation and is usually operated in conjunction with its relatively cheap sister-fishery 'croaker'. The peculiarity in this fishery is that it involves intrinsic techniques of speculation and detection which are hardly inept but are acquired from many years of observations of weather current and waves.

Crayfish are high demanding commodity since they form indispensable ingredient of our soup. They are always marketed smoked in bags or baskets and the price system fluctuates with seasons.

Hook Fishery

There are two types of Hook fishery - the creek and the sea, the former more developed and popular than the latter. In Ikot Abasi fishing settlements such as Uta Ewa, Okoroete, Iko, there are groups of healthy looking robust fishermen whose area of fishery specialization is hooking. Their attachment to this area is so deeprooted that one would not believe his ears if he is told they cannot set nets or fish with any other gears.

Hook fishery is an all-season affair of which has until recent been carried out with hand paddled canoes. Hooks of 1 - 20 sizes arranged in long lines of about 1000 - 3000 hooks are applied. The hooks are either real baited with crabs, crustaceans small fish, mudskippers and eels or they are foulbaited with soap pieces or garri. The catch

composition and efficiency depends on so many factors namely:-

- (a) Efforts and energy applied to structure the lines.
- (b) Setting techniques, usually developed after many years of practice and experience.
- (c) Setting positions which have direct bearings with the tides and directions.
- (d) Luck.
- (e) Type and size of gear.

Hooking is not very popular in Ikot Abasi and is embraced by few able bodied fishermen but the outputs are very encouraging. A common not easily noticed risk is the manner of extricating and capturing of a hooked fish. A special skill is developed and caution has to be exercised to avoid capsizing of the canoe and loss of life and equipment which follows. But the gladdening aspect of this fishery is that there is catch selectivity which attracts high financial remuneration. The investment is minimal and hook operations are usually high profit oriented.

The types of fish caught include:-

Shinynose, Cynoglossus, Shad, Chrysichthys nigrodigitatus (Catfish) Croakers, Drums, Horse Mackerels, Threadfins, Snappers, Grunters and Soles.

S/N	Type of Fishery	No. of Fishermen	No. of Canoe unit	Av. Catch per unit in Kgs.	Total Catch in Kgs.	Total Amount N K
1.	Bonga	300	100	200	20,000	₦20,000.00
2.	Big fish	160	40	4000	160,000	320,000.00
3.	Small scale Croaker	600	200	700	14,000	9,340.00
4.	Crayfish	150	50	28	1,400	7,000.00
5.	Hook	60	30	2880	86,400	172,800.00
		1,270	420	7808	281,800	529,140.00

Table 1 - Comparative total production statistics of 4 fishing villages in Ikot Abasi

Table 1 shows that 1,270 fishermen are engaged in canoe fishery in four fishing villages of Iko, Okoroete, Kampa and Uta Ewa. An average of 222kg of fish per fisherman per year with a revenue of ₦416.65 per fisherman per year is rather low. It is here that Government extension services could play a greater role to increase fish production to enhance revenue earning capacity of the fishermen.

Problems and Prospects of Canoe Fishery

1) Logistics:

- (a) Because of the remoteness of some of the fishing settlements coupled with poor transportation facilities, intermittent fuel scarcity hampers regular fishing trips and reduces productivity.

- (b) There is attendant high cost of gears to replace worn-out or lost ones.
- (c) Very many of the canoes used become sea unworthy after a few years application.
- (d) As a result of inherent poverty there are no funds to purchase outboard engines even at government subsidised rate.
- (e) Hand paddling of canoes are usually strenuous and involves the exertion of much energy and efforts. The inconvenience is highly imagined than expressed.
- (f) Inability to obtain correct gear at appropriate time.
- ii) Mishap: Occasionally there are pathetic reports of trawler menace and sea accidents often resulting in loss of lives and equipment. This highlights the risks involved in open sea fishing which few fishermen are ready to brave and hence causing a set-back to higher productivity.
- iii) Lack of efficient and effective processing facilities which always leads to loss of fish through spoilage both at sea and at the fishing ports in case of heavy landings.
- iv) There are frequent breakdown of outboard engines and because of non-availability of repair facilities and sometimes lack of spare parts some brand of engines are rendered unserviceable after a few months of use.
- v) Artisanal fishermen are handicapped by inability to handle properly and maintain regularly their outboard engines. Provided the engines are working no efforts are spared to send them to a mechanical workshop for check-up to keep them in serviceable forms.
- vi) There is an inherent superstition connected with fishery which the fishermen have refused to do away with. This consequently leads to 'stubbornness in inhibiting modern progressive techniques.
- vii) Rough turbulent weather conditions constitute a set back to regular fishing activities.
- viii) Lack of constant training programmes on fish processing hampers progress
- ix) The lifestyle of fishermen which most of the time borders on debauchery and squandermania kills reinvestment spirit. "Boom" season can sometimes attract high revenue of about ₦3,000.00 to ₦4,000.00. This money is usually spent on wasteful ventures like excessive drinking, marrying of many wives and land court cases.

GOVERNMENT ROLE TO ENCOURAGE INCREASED PRODUCTIVITY

Canoe fishery, immediately after the war, had begun to enjoy boaster from the governments through the various government development programmes. One of the most successfully implemented programmes is the National Accelerated Fish Production Programme which has actually achieved the following:-

- (a) Intensive mechanisation of the canoe fishery through the uninterrupted supply of outboard engines to the fishermen.
- (b) Supply of seaworthy canoes and other fishing accessories at 50% subsidy.

- (c) Establishment of modern fishing villages at Iko, Okoroete and Uta Ewa where mechanical workshop, cold room/ice plant complex and technical expertise are provided.
- (d) In case of sea mishaps trawler menace, loan/credit facilities are given at very generous terms to victims.
- (e) Efforts have been stepped up to band the fishermen at each settlement into viable cooperative society for self-development and progress.
- (f) Government also provides an effective and well coordinated extension services to encourage and give technical advice to fishermen for increased production.
- (g) Government has also despatched fisheries cooperative experts to address and advise the canoe fishermen on the proper manner to organise their societies in order to attain their setdown goals and objectives.

The cooperative drive has yielded huge dividend. Three of the four cooperative societies in the fishing areas are registered and are qualified for further Government assistance in terms of bulk purchase of fishing inputs for resale at marginal profits to their members.

DISCUSSIONS AND CONCLUSIONS

Various types of canoe fishery appear to have attained high degree of development in the fishing villages of Ikot Abasi. Since Government efforts have been stepped up to raise the economy of fishery industry, it will be advisable for the fishermen to abandon their conservative customs and traditions to embrace modern technology in the fishery sector. A meagre per capita income of N416.65 per annum is saddeningly disappointing. Government had made various proposals to introduce innovations into the sector through the replacement of the wooden canoe with a more sophisticated and long lasting craft called GRP boat. The multifilament gill nets are replaced by monofilament nets which have high catching efficiency and less susceptible to crab attack. The introduction of pair trawling must be adopted. The aims and objectives of a fisherman should be to attain the highest efficiency in their profession and compare favourably with other professions. They can do this by adopting their minds to change and encouraging their offsprings to embrace fishing as a better vocation and through effective education impart their acquired skills and experience to their children. These could then be improved upon by advanced technical training and practice. In this way the traditional fishing methods could be enhanced for effective exploitation of our ever abundant and little tapped natural resources. The change-over to industrial fishing must not be hastily pursued. It must be viewed as a gradual process which will be fully embraced after a significantly high level is attained in the development of canoe fishery industry.

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DISCUSSION

It was pointed out that the paper confirms the encroachment of the States' artisanal fishermen on the industrial fishing grounds i.e., beyond 2 to 30 n. mls. There were some discrepancy in the description of gear as presented in the paper e.g. combination of a large size range of hooks on the same line and reference to purse seining which does not exist as yet in Nigerian artisanal fishery.

The author was advised to adopt standard classification of the well known Nigerian fishery. It would only be necessary to coin names for newly discovered methods if any.